

Healthcare Information Technology Standards Panel

HITSP Harmonization Framework



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HITSP Approach

- ▶ Use Harmonization process to define a set of artifacts called constructs that
 - Specifies how to integrate and constrain selected standards to meet the business needs of a Use Case
 - Defines Roadmap to use emerging standards and to harmonize overlapping standards when resolved
- ▶ The HITSP Framework describes
 - Types of constructs that could be used to specify how to meet the needs of a Use Case.
 - Defines specific rules for each construct type, including:
 - ▶ What a construct type can used for.
 - ▶ How construct types can be nested.



HITSP Harmonization Framework

- ▶ HITSP construct types, in decreasing breadth of scope, include:
 - Interoperability Specification – integrates all constructs used to meet business needs of a Use Case
 - Transaction packages – Logical group of transactions
 - Transaction - logical group of actions that use components and/or composite standards to realize the actions
 - Components - groups of base standards that work together, such as message and terminology
- ▶ Each construct:
 - May contain construct types that are less inclusive in scope
 - May constrain any construct or standard it contains.
 - May be constrained by any construct that contains it
 - Is a candidate for reuse and repurposing, if a new set of requirements and context can be fulfilled by the construct without impacting existing uses of the construct
 - Is uniquely identified and version controlled



HITSP Framework

Use Case/Modification Request

Interoperability Specification
(1..m transaction packages, transactions, or components)

Transaction Package
(1..m transactions or composite standards)

Transaction (1..n components or composite standards)

Component (1..c base or composite standards)

Component
(Composite)
Standard

Transaction
(Composite)
Standard

Transaction Package
(Composite) Standard

Base Standard #1

Base Standard #2

Base Standard #3

Base Standard #4

Base Standard #5

Base Standard #6

Base Standard #7

Standards Organization

Defines and Narrows Context

Potential for Reuse in Other Contexts

Definitions and Rules

Level	Definition	Example	Rules
Use Case or Harmonization Request	<ul style="list-style-type: none"> ▪ Defines business and functional requirements 		
Interoperability Specification – to meet use case	<ul style="list-style-type: none"> ▪ Models business, functional, interoperability requirements to meet Use Case ▪ Identifies technical system requirements to meet Use Case ▪ Set context for constructs used 	<ul style="list-style-type: none"> ▪ HITSP EHR Interoperability Specification 	<ul style="list-style-type: none"> ▪ Identifies technical actors and actions ▪ May include any other HITSP construct - components, transactions or transaction packages ▪ Expresses constraints on HITSP constructs used



Definitions and Rules (continued)

Level	Definition	Example	Rules
Transaction Package	<ul style="list-style-type: none"> ▪ Defines how HITSP constructs are used to support a stand-alone information interchange within a defined context between two or more systems 	<ul style="list-style-type: none"> ▪ Record Locator Service ▪ Entity Identification Service ▪ Manage Sharing of Documents 	<ul style="list-style-type: none"> ▪ Thin context and interoperability requirements that are testable ▪ Addresses like technical actors, context, and content ▪ May use and constrain two or more transactions and/or one or more composite standards ▪ In special circumstances, may use and constrain infrastructure or security component constructs
Transaction	<ul style="list-style-type: none"> ▪ Logical grouping of actions, including necessary content and context, that must all succeed or fail as a group. 	<ul style="list-style-type: none"> ▪ Query lab result ▪ Send lab result 	<ul style="list-style-type: none"> ▪ Fulfills actions between systems needed to meet one or more interoperability requirements ▪ Testable ▪ May use components or composite standards ▪ Express constraints on composite standards or components used



Definitions and Rules (continued)

Level	Definition	Example	Rules
Component	<ul style="list-style-type: none">▪ An atomic construct used to support an information interchange or to meet an infrastructure requirement (e.g., security, logging/audit)	<ul style="list-style-type: none">▪ Lab result message▪ Lab result context	<ul style="list-style-type: none">▪ Typically will use one “primary” standard and may have other “secondary” standards▪ Expresses constraints on base or composite standards used



Composite and Base Standards

Level	Definition	Example	Rules
Base Standard	<ul style="list-style-type: none"> ▪ A standard capable of fulfilling a discrete function within a single category produced and maintained by a single standards organization. 	<ul style="list-style-type: none"> ▪ Messaging standard ▪ Security standard ▪ Code set. 	HITSP definition of “standard” includes: <ul style="list-style-type: none"> – Specifications – Implementation Guides – Code Sets – Terminologies – Integration Profiles
Composite Standard	<ul style="list-style-type: none"> ▪ Grouping of base standards, often from multiple standards organizations, maintained by single organization. In HITSP, it can fulfill functional requirements for a component, transaction or transaction package. 	<ul style="list-style-type: none"> ▪ IHE Integration Profiles ▪ HL7 Implementation Guides ▪ Health transaction services 	Per Definition above

